

Amendments to the claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1-42. (cancelled)

43. (new) A biocompatible cohesive biopolymer gel comprising a coprecipitate of at least one fibrillar protein and at least one sulfated polysaccharide.

44. (new) The biocompatible cohesive biopolymer gel of claim 43 wherein the coprecipitate is formed in the absence of an exogenous cross-linking agent in the presence of a volatile organic solvent.

45. (new) The biocompatible cohesive biopolymer gel of claim 43 wherein the coprecipitate is formed at a pH of at least 2 pH units above or below neutral pH.

46. (new) The biocompatible cohesive biopolymer gel of claim 45 wherein the coprecipitate is formed at an acidic pH, between pH of about 2.0 and pH of about 5.0.

47. (new) The biocompatible cohesive biopolymer gel of claim 45 wherein the coprecipitate is formed at a basic pH between pH of about 9.0 and pH of about 12.0.

48. (new) The biocompatible cohesive biopolymer gel of claim 43 wherein the protein is selected from the group consisting of collagen, elastin, fibrin, albumin and gelatin.

49. (new) The biocompatible cohesive biopolymer gel of claim 48 wherein the protein is gelatin.

50. (new) The biocompatible cohesive biopolymer gel of claim 43 wherein the sulfated polysaccharide is selected from the group consisting of dextran sulfate, chondroitin sulfate, heparin, heparan sulfate, keratan sulfate, dermatan sulfate, algal sulfated polyglycan, or a synthetic sulfated polysaccharide.

51. (new) The biocompatible cohesive biopolymer gel of claim 50 wherein the sulfated polysaccharide is dextran sulfate.
52. (new) The biocompatible cohesive biopolymer gel of claim 51 wherein the dextran sulfate has a molecular weight in a range of from about 4,000 Dalton to about 500,000 Daltons.
53. (new) The biocompatible cohesive biopolymer gel of claim 52 wherein the dextran sulfate is selected from
- (a) a high molecular weight dextran sulfate having a molecular weight in a range of from about 300,000 Dalton to about 500,000 Dalton; and
 - (b) a low molecular polymer dextran sulfate having a molecular weight in a range of from about 5,000 Dalton to about 10,000 Dalton.
54. (new) The biocompatible cohesive biopolymer gel of claim 43 wherein the cohesive biopolymer comprises gelatin and dextran sulfate.
55. (new) The biocompatible cohesive biopolymer gel of claim 54 comprising 30% to 70% of dextran sulfate.
56. (new) The biocompatible cohesive biopolymer gel of claim 54 comprising 30% to 70% of gelatin.
57. (new) The biocompatible cohesive biopolymer gel of claim 54 comprising about 50% gelatin and about 50% dextran sulfate.
58. (new) The biocompatible cohesive biopolymer gel of claim 43 further comprising at least one substance selected from anticoagulants, adhesive molecules, growth factors, enzymes, antioxidants, antifibrotic substances, positively charged molecules, a peptide rich in positively charged amino acids, and nutritional elements.
59. (new) The biocompatible cohesive biopolymer gel of claim 44 further comprising bridges formed by subsequent addition of a cross-linking agent to the coprecipitate formed.
60. (new) The biocompatible cohesive biopolymer gel of claim 59 wherein the cross-linking agent is selected from the group consisting of a monosaccharide: ribose, glucose, mannose and xylose; factor XIII; lysyloxidase; a carbodiimide; and an oxidizing agent.

61. (new) The biocompatible cohesive biopolymer gel of claim 43 further comprising at least one bioactive compound selected from the group consisting of a hormone, a growth factor, a proteolytic enzyme, an anti-fibrotic agent, a coagulative agent, an extracellular matrix component, an anti oxidant, a natural or synthetic polymer.
62. (new) The biocompatible cohesive biopolymer gel of claim 43 wherein the coprecipitate is formed into fibers, sheets, sponges, fabrics or tubes.
63. (new) The biocompatible cohesive biopolymer gel of claim 43 wherein the coprecipitate is formed as a coating for a stent, wherein the stent is selected from a vascular stent and a tracheal stent.
64. (new) The biocompatible cohesive biopolymer gel of claim 43 wherein the coprecipitate is formed into a scaffold.
65. (new) The biocompatible cohesive biopolymer gel of claim 64 wherein the scaffold encloses hyaluronic acid-laminin gel.
66. (new) The biocompatible cohesive biopolymer gel of claim 43 wherein the coprecipitate is formed into a scaffold for enclosing neuronal cells.
67. (new) The biocompatible cohesive biopolymer gel of claim 66 wherein the scaffold enclosing neuronal cells further encloses hyaluronic acid-laminin gel.
68. (new) The biocompatible cohesive biopolymer gel of claim 43 formed into a scaffold for use as a cell bearing implant.
69. (new) An implant comprising a biocompatible cohesive biopolymer gel according to claim 43.
70. (new) A method for preparing a biocompatible cohesive biopolymer gel suitable as an implant in a human or animal, which comprises:
 - providing a solution of a fibrillar protein;
 - providing a solution of sulfated polysaccharide;
 - combining the two solutions at a pH of at least 2 pH units above or below neutral pH in the absence of an exogenous cross-linking agent to form a coprecipitate of cohesive gel; and

precipitating the cohesive gel with a volatile organic solvent.

71. (new) The method of claim 70 wherein the fibrillar protein is gelatin.
72. (new) The method of claim 70 wherein the sulfated polysaccharide is dextran sulfate.
73. (new) The method of claim 72 wherein the dextran sulfate has a molecular weight in a range of from about 4,000 Dalton to about 500,000 Daltons.
74. (new) The method of claim 73 wherein the dextran sulfate is selected from
 - (a) a high molecular weight dextran sulfate having a molecular weight in a range of from about 300,000 Dalton to about 500,000 Dalton; and
 - (b) a low molecular polymer dextran sulfate having a molecular weight in a range of from about 5,000 Dalton to about 10,000 Dalton.
75. (new) The method of claim 70 wherein the pH is an acidic pH between pH of about 2.0 and pH of about 5.0.
76. (new) The method of claim 70 wherein the pH is a basic pH between pH of about 9.0 and pH of about 12.0.
77. (new) The method of claim 70 wherein the volatile organic solvent is an alcohol.
78. (new) The method of claim 70 further comprising forming the gel into fibers by a process selected from the group consisting of dry extrusion, gel extrusion, melt extrusion, solution extrusion, spinning extrusion, spraying of nanofibrils and combinations thereof.
79. (new) The method of claim 70 further comprising shaping the biocompatible cohesive biopolymer gel.
80. (new) The method of claim 70 further comprising incorporating a bioactive substance into the biopolymer.
81. (new) A kit for carrying out extemporaneously a method according to claim 70, the kit comprising at least one dose of each constituent solution necessary to obtain the coprecipitate which forms the biocompatible cohesive biopolymer gel.

82. (new) A composition for sustained release of a bioactive substance comprising a bioactive substance within a biocompatible cohesive biopolymer gel according to claim 43.
83. (new) A method for repairing a lesion in a tissue, comprising applying the biocompatible cohesive biopolymer gel of claim 43 at a site of the lesion.
84. (new) The method of claim 83 wherein the lesion is a tracheal lesion.